

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 8708 WO GEB-FRI	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/EP2004/006119	International filing date (day/month/year) 07.06.2004	Priority date (day/month/year) 03.07.2003
International Patent Classification (IPC) or national classification and IPC B60K17/04, B60K17/00, F16H57/02		
Applicant ZF FRIEDRICHSHAFEN AG		

1.	This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2.	This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.
3.	This report is also accompanied by ANNEXES, comprising: <ul style="list-style-type: none"> a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>2</u> sheets, as follows: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4.	This report contains indications relating to the following items: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

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Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
 - ☐ international search (Rule 12.3 and 23.1(b))
 - ☐ publication of the international application (Rule 12.4)
 - ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
 - ☐ the international application as originally filed/furnished
 - ☒ the description:
 - pages 1-8 _____ as originally filed/furnished
 - pages* _____ received by this Authority on _____
 - pages* _____ received by this Authority on _____
 - ☒ the claims:
 - nos. _____ as originally filed/furnished
 - nos.* _____ as amended (together with any statement) under Article 19
 - nos.* 1-3 _____ received by this Authority on 11.11.2004 with letter of 09.11.2004
 - nos.* _____ received by this Authority on _____
 - ☒ the drawings:
 - sheets 1/2-2/2 _____ as originally filed/furnished
 - sheets* _____ received by this Authority on _____
 - sheets* _____ received by this Authority on _____
 - ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
 - ☐ the description, pages _____
 - ☐ the claims, nos. _____
 - ☐ the drawings, sheets/figs _____
 - ☐ the sequence listing (*specify*): _____
 - ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
 - ☐ the description, pages _____
 - ☐ the claims, nos. _____
 - ☐ the drawings, sheets/figs _____
 - ☐ the sequence listing (*specify*): _____
 - ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-3	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-3	NO
Industrial applicability (IA)	Claims	1-3	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

This report refers to the following documents:

- D1: DE 93 19 187 U (HURTH GETRIEBE & ZAHNRAEDER) 19 January 1995 (1995-01-19)
- D2: US-A-4 461 367 (BARTL MAX ET AL) 24 July 1984 (1984-07-24)
- D3: DE 12 63 150 B (ADAM BAUMUELLER GMBH; ELEKTROTECHNIK FAB F) 14 March 1968 (1968-03-14)
- D4: US-A-4 824 264 (HOEBEL PETER) 25 April 1989 (1989-04-25) .

1. The present application does not satisfy the requirements of PCT Article 33(1) because the subject matter of claim 1 does not involve an inventive step within the meaning of PCT Article 33(3) .
2. Document D1 is considered the prior art closest to the subject matter of claim 1. It discloses (the references between parentheses relate to D1):

a bevel gear drive without adjustment discs for the steerable wheel of a lift truck, having a

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	<p>housing for receiving a bevel gear set, a ring gear, a plurality of bearing bores for mounting a pinion shaft, a spur gear stage which is disposed upstream of the bevel gear set and drives the bevel pinion shaft, wherein the ring gear is mounted in the housing via a ... bearing, and the housing is a single piece and receives all of the bevel gear set and spur gear drive and has a cover lid which covers the opening of the housing in the area of the spur gear drive, wherein at the point at which the perpendicular bearing bores for mounting the bevel pinion shaft are configured the cover lid (11) is provided with a fillet which makes it possible to introduce a suitable dimensioned tool perpendicularly into the single-piece housing (12) so as to ensure that the exact housing dimensions for the production of the bearing bores for the bevel pinion shaft can be produced such that they present little play. As a result, the bearing bores for the bevel pinion shaft can be fully produced in a single cycle (see page 3, last paragraph; figure 1).</p> <p>3. The subject matter of claim 1 therefore differs from the known bevel gear drives in that the ring gear is mounted using a UniPack bearing.</p> <p>4. The problem to be solved by the present invention is therefore understood to be that of configuring the bearing as a unit.</p>

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
5.	The solution proposed in claim 1 of the present application cannot be considered inventive, for the following reasons (PCT Article 33(3)):
6.	The feature 'UniPack bearing' (having one or more sliding or rolling surfaces) is only one of several obvious possibilities from which a person skilled in the art would choose according to the circumstances, without thereby being inventive.
7.	Dependent claims 2 and 3 contain no features which, combined with the features of any claim to which they refer, meet the PCT requirements for novelty and inventive step (see documents D1 to D3 and the corresponding passages cited in the search report).